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TITLE V OPERATING PERMIT
Issued under 20.2.70 NMAC

Certified Mail No: 7009 2820 0001 4056 6442
Return Receipt Requested

Operating Permit No:	P147-R1
Facility Name:	Tyrone Mine
Permittee Name:	Freeport-McMoRan Tyrone Inc.
Mailing Address:	PO Box 571 Tyrone, NM 88065
TEMPO/IDEA ID No:	527 - PRT20060001
AIRS No:	3501700002
Permitting Action:	Title V Renewal
Air Quality Bureau Contact:	Joseph Kimbrell
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Ana Maria Richardson
for **Mary Uhl**
Bureau Chief
Air Quality Bureau

10/25/10
Date

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PART A FACILITY SPECIFIC REQUIREMENTS

A100 Introduction

A. Not Applicable

A101 Permit Duration (expiration)

A. The term of this permit is five (5) years. It will expire five years from the date of issuance. Application for renewal of this permit is due twelve (12) months prior to the date of expiration. (20.2.70.300.B.2 and 302.B NMAC)

B. If a renewal permit is not issued prior to the expiration date, the permittee may continue to operate beyond the expiration date, provided that a timely renewal application is submitted no later than twelve (12) months prior to the expiration date. (20.2.70.400.D NMAC)

A102 Facility: Description

A. This facility operates an open pit copper mine which involves process activities such as drilling, blasting, loading, hauling, and unloading of ore and overburden materials. The mined material with higher grade copper is delivered to stockpiles where a slightly acidic solution is applied to dissolve the copper and produce a copper laden solution called pregnant leach solution (PLS). The PLS is collected in ponds and gravity fed to the solution extraction/electrowinning plant (SX/EW) for processing. The SX/EW plant extracts copper ions from the PLS using a series of mixer/settler tanks that employ extraction and stripping processes with organic diluents and extractants to produce a copper-rich aqueous electrolyte solution. The electrolyte solution is processed through a series of cells in the electrowinning tankhouse where copper ions from the electrolyte solution plate onto starter sheets to

produce copper cathode plates. The copper cathodes are the final product shipped to customers. The power plant has been declared Emergency Use and operates under a voluntary limit of 3,000 hrs/year for the combined operation of the 10 power plant engines. In addition, one cold-start engine operates 500 hours per year. Contractor owned, permitted, and operated screening plants periodically produce rip-rap and graded bedding material for a variety of reclamation construction requirements, as required. The contractor screening plants are permitted separately however, must meet emission limits and operational conditions set forth in this permit.

B. This facility is located at UTM Zone 12, UTMH 754.50 km, UTMV 3616.80 km, in Township 19S, Range 15W, Sections 10, 11, 14, 15, 16, 21-28, approximately 4.0 miles southwest of Tyrone, New Mexico in Grant County. This facility is a stationary source and not allowed to relocate. (20.2.70.302.F NMAC)

C. This action is the first renewal of the operating permit and will for the first time incorporate all operations at the mine authorized by NSR Permit 2448AR1 and NSR Permit 2448R3 into one operating permit. Modeling was accomplished for all operations at the mine. This description is for informational purposes only and is not enforceable.

D. Table 102.A and Table 102.B show the total potential emissions from this facility for information only, not an enforceable condition, excluding insignificant or trivial activities.

Table 102.A: Total Potential Criteria Pollutant Emissions from Entire Facility

Pollutant	Emissions (tons per year)
Nitrogen Oxides (NOx)	57.4
Carbon Monoxide (CO)	37.6
Volatile Organic Compounds (VOC)*	2.12
Sulfur Dioxide (SO_2)	0.5
Total Particulate Matter (TSP)	1.3
Particulate Matter less than 10 microns (PM_{10})	0.6
Particulate Matter less than 2.5 microns ($PM_{2.5}$)	0.0
Nitrogen Oxides (NOx) from Fugitives	175.8
Carbon Monoxide (CO) from Fugitives	630.0
Volatile Organic Compounds (VOC) from Fugitives	43.86
Sulfur Dioxide (SO_2) from Fugitives	21.77
Total Particulate Matter (TSP) from Fugitives	5061.5
PM_{10} from Fugitives	1,260
$PM_{2.5}$ from Fugitives	127.8

Table 102.B: Total Potential HAPs from fugitive emissions that exceed 1.0 tons per year

Pollutant	Emissions (tons per year)
Ethyl benzene	5.1
Formaldehyde	1.5
Toluene; (Methyl benzene	1.0
Xylenes (total); (Xylol)	6.7
Total HAPs**	14.42

* HAP emissions are already included in the VOC emission total.

** The total HAP emissions may not agree with the sum of individual HAPs because only individual HAPs greater than 1.0 tons per year are listed here.

A103 Facility: Applicable Regulations and Non-Applicable Regulations

A. The permittee shall comply with all applicable sections of the requirements listed in Table 103.A.

Table 103.A: Applicable Requirements

Applicable Requirements	Federally Enforceable	Entire Facility	Unit No.
NSR Permits No: 2448R3, PSD-2448AR1(Per 20.2.72 NMAC)	X	X	
20.2.7 NMAC Excess Emissions	X	X	
20.2.61 NMAC Smoke and Visible Emissions	X		PPG-1, 3, 4, 7, 8, 11, 12, 13, 14, 15, CE-1, B-079, B-088, ENV-123
20.2.70 NMAC Operating Permits	X	X	
20.2.71 NMAC Operating Permit Emission Fees	X	X	
20.2.72 NMAC Construction Permit	X	X	
20.2.73 NMAC Notice of Intent and Emissions Inventory Requirements	X	X	
40 CFR 50 National Ambient Air Quality Standards	X	X	
40 CFR 63, Subpart A, General Provisions	X		PPG-1, 3, 4, 7, 8, 11, 12, 13, 14, 15
40 CFR Part 63, Subpart ZZZZ NESHAPS for Reciprocating Internal Combustion Engines	X		PPG-1, 3, 4, 7, 8, 11, 12, 13, 14, 15
40 CFR 63 Subpart CCCCCC NESHAPS for Gasoline Dispensing Facilities (GDFs) with average monthly throughputs less than 10,000 gallons/month and between 10,000 and 100,000 gallons per month	X		SPCC-TYR-119 (GDF2) SPCC-TYR-061 (GDF1)
40 CFR 72.7 Acid Rain Program, Permits Regulation – New Unit Exemption	X		PPG-1, 3, 4, 7, 8, 11, 12, 13, 14, 15, CE-1

B. Table 103.B lists requirements that are **not** applicable to this facility. This table only includes those requirements determined by the Department to be not applicable, or the Department determined that the requirement does not impose any conditions on a regulated piece of equipment.

Table 103.B: Non-Applicable Requirements

Non-Applicable Requirements	(1)	(2)	Justification For Non-Applicability
20.2.1 NMAC General Provisions (Sampling Equipment, Severability, Effective Date, and Conflicts)		X	
20.2.2 NMAC Definitions		X	
20.2.5 NMAC Source Surveillance		X	
20.2.60 NMAC Regulation to Control Open Burning	X		
20.2.74 NMAC Permits – Prevention of Significant Deterioration (PSD)	X		
20.2.75 NMAC Permit Fees		X	
20.2.77 NMAC New Source Performance	X		
20.2.78 NMAC Hazardous Air Pollutants	X		
20.2.80 NMAC Stack Heights	X		
40 CFR 60, Subpart LL Metallic Mineral Processing Plants	X		
40 CFR 60, Subpart OOO	X		
40 CFR 64 Compliance Assurance Monitoring	X		
Settlement Agreement			Not Applicable

(1) Not Applicable For This Facility: No existing or planned operation/activity at this facility triggers the applicability of these requirements.

(2) No Requirements: Although these regulations may apply, they do not impose any specific requirements on the operation of the facility as described in this permit.

A104 Facility: Regulated Sources

A. Table 104 lists all of the emission units authorized for this facility. Emission units that were identified as insignificant or trivial activities (as defined in 20.2.70.7 NMAC) and equipment not regulated pursuant to the Act are not included.

Table 104.A: Regulated Sources List

Unit No.	Source Description	Make Model	Serial No.	Capacity	Manufacture Date
Solution Extraction Plant					
SX/EW-1 Fugitive	Mixer/settlers (6 Extraction & 4 Stripping)	N/A	N/A	61,366 SF of surface area	1/2/2001
SX/EW-2 Fugitive	SX/EW (3) Acid Tank House	N/A	N/A	24000 gal/min	1/2/1984

Unit No.	Source Description	Make Model	Serial No.	Capacity	Manufacture Date
Solution Extraction Plant					
SX/EW-3 Fugitive	Raffinate Tank 1, Open	N/A	N/A	2 million gal	1/2/2001
SX/EW-4 Fugitive	Raffinate Tank 2, Open	N/A	N/A	0.4 million gal	1/2/2001
B-079	Water Boiler	A.O. Smith	8620079	501.6 M BTU/h	1/1/2008
B-088	Water Boiler	Lochinvar Corporation	CO8H0020 7088	1256 M BTU/h	1/1/2008
ENV-123	Stormwater Pump w/hour limit	Caterpillar	BEJ10905	225 hp	1/1/2005
Power Plant					
CE-1	Diesel cold start compressor engine	Ford-New Holland	Unknown	100 hp	1/1/1967
PPG-1	Ng/diesel Generator Engine	Nordberg, FSG-1316-HSC	10301202	3090 hp	1/1/1967
PPG-3	Ng/diesel Generator Engine	Nordberg	10301207	3090 hp	1/1/1967
PPG-4	Ng/diesel Generator Engine	Nordberg	10301208	3090 hp	1/1/1967
PPG-7	Ng/diesel Generator Engine	Nordberg	10301211	3090 hp	1/1/1967
PPG-8	Ng/diesel Generator Engine	Nordberg	10301212	3090 hp	1/1/1971
PPG-11	Ng/diesel Generator Engine	Nordberg	10301283	3090 hp	1/1/1971
PPG-12	Ng/diesel Generator Engine	Nordberg	10301304	3090 hp	1/1/1972
PPG-13	Ng/diesel Generator Engine	Nordberg	10301305	3090 hp	1/1/1972
PPG-14	Ng/diesel Generator Engine	Nordberg	10301306	3090 hp	1/1/1972
PPG-15	Ng/diesel Generator Engine	Nordberg	10301307	3090 hp	1/1/1972
Mining Operation and Reclamation					
Mine Fugitives	Blasting	Not Required	Not Required	Not Required	1/2/1984
Mine Fugitives	Handling	Not Required	Not Required	Not Required	1/2/1984
Mine Fugitives	Hauling	Not Required	Not Required	Not Required	1/2/1984
SPCC-TYR-061 (GDF1)	Gasoline Dispensing Facility	Not Required	Not Required	20,000 gal	

Unit No.	Source Description	Make Model	Serial No.	Capacity	Manufacture Date
Solution Extraction Plant					
SPCC-TYR-119 (GDF2)	Gasoline Dispensing Facility	Not Required	Not Required	2,000 gal	
SP-1A Fugitives	Handling, Screening Plant	Not Required	Not Required	Not Required	Not Required
SP-1A-7A Fugitives	Hauling	Not Required	Not Required	Not Required	Not Required
SP-7A Fugitives	Handling, Screening Plant	Not Required	Not Required	Not Required	Not Required

1 Manufacture dates for screening plants are not required since these will be future contractor plants and manufacture date is unknown at this time.

A105 Facility: Control Equipment

A. Table 105.A lists all the pollution control equipment required for this facility. Each emission point is identified by the same number that was assigned to it in the permit application.

Table 105.A: Control Equipment List:

Control Equipment Unit No.	Control Description	Pollutant being controlled	Control for Unit No.[1]
NA	Water Sprays	PM	SP-1A Fugitives
NA	Water Application or other method approved by the Department	PM	SP-1A-7A Fugitives
NA	Water Sprays	PM	SP-7A Fugitives

1 Control for unit number refers to a unit number from the Regulated Equipment List

B. The Solution Extraction Plant has no pollution control equipment. The Tank covers are integral to the tank construction and must be in place at all times of operation.

A106 Facility: Allowable Emissions

A. The following table(s) list the emission units, and their allowable emission limits. (40 CFR 50, Paragraphs 1, 7, and 8 of 20.2.70.302.A NMAC and NSR Permits 2448R3 and PSD-2448A-R1).

Table 106.A: Allowable Emissions

Unit No.	[1]NO_x pph	NO_x tpy	CO pph	CO tpy	VOC pph	VOC tpy	SO_2 pph	SO_2 tpy	TSP pph	TSP tpy	PM_{10} pph	PM_{10} tpy	$PM_{2.5}$ pph	$PM_{2.5}$ tpy
SX/EW-1 Fugitive	-[2]	-[2]	-[2]	-[2]	9.63	42.2	-[2]	-[2]	-[2]	-[2]				

Unit No.	[1]NO_x pph	NO_x tpy	CO pph	CO tpy	VOC pph	VOC tpy	SO_2 pph	SO_2 tpy	TSP pph	TSP tpy	PM_{10} pph	PM_{10} tpy	$PM_{2.5}$ pph	$PM_{2.5}$ tpy
SX/EW-2 Fugitive	-[2]	-[2]	-[2]	-[2]	-[2]	-[2]	-[2]	-[2]			1.82	8.0		
SX/EW-3 Fugitive	<[3]	<[3]	<[3]	<[3]	<[3]	<[3]	<[3]	<[3]	<[3]	<[3]				
SX/EW-4 Fugitive	<[3]	<[3]	<[3]	<[3]	<[3]	<[3]	<[3]	<[3]	<[3]	<[3]				
B-079		<[3]		<[3]										
B-088		<[3]		<[3]										
[6]ENV-123	2.7	0.4		<[3]				<						
CE-1	3.1	<[3]	<[3]	<[3]	<	<	<	<	<[3]	<[3]	<	<	<	
[5]PPG-1,3,4,7,8,11-15	499.7	56.2	285.7	37.4	29.0	2.12	12.5	<[3]	15.1	1.3	12.4	<[3]	10.4	<[3]
Mine Fugitives (Blasting)	67.3	157.3	265.2	619.8			7.9	18.5						
Mine Fugitives (Handling)									1.2	5.3	<[3]	2.0	<[3]	<[3]
Mine Fugitives (Hauling)									1577	4937	385.6	1207	38.6	120.7
SP-1A/7A Plants	8.0	17.4	4.5	9.6	<[3]	<[3]	1.5	3.2	58.94	119.2	20.8	43.0	3.0	6.2
Total[4]		231.3		666.8		44.32		21.7		5062.8		1260.0		126.9

1 Nitrogen dioxide emissions include all oxides of nitrogen expressed as NO_2
2 "-" indicates the application represented emissions of this pollutant are not expected.
3 "<" indicates the application represented emissions are less than 1.0 pph or 1.0 tpy for this pollutant. Allowable limits are not imposed on this level of emissions unless the emissions has established controls.
4 Total allowables are for information only, not enforceable conditions, and are used to determine annual Operating Fees.
5 These engines have the emissions limits for their combined operation as shown.
6 Emission limit was established due to hours of operation limitation requested.

B. While the generators, PPG-1, 3, 4, 7, 8, 11, 12, 13, 14, or 15, are operating in a Non-Dual Fuel mode, the average Facility hourly NOx emissions rate of all the Nordberg engines shall not exceed the resulting product of Equation 2.1a). (NSR 2448A-R1, Condition 2.a)

Equation 2.1a: Maximum Average Hourly NOx Emissions Rate for Non-Dual Fuel Operations.

$$NOx\frac{lb}{hr} = \frac{31.4\,lb\ NOx}{hr} \times \left(\#\,of\ Engines\ \text{Available}\ for\ Daily\ Operation\right)$$

Daily compliance with the above average pound per hour NOx limit shall be demonstrated by Equation 2.1b.

Equation 2.1b: Actual average NOx Emissions Rate for Non-Dual Fuel Operations in each calendar day.

$$\frac{lb\ NO_X}{hr} = (Emissions\ Factor)\frac{lb\ NO_X}{hr} \times \frac{Non\ Dual\ Fuel\ Operating\ Hours}{day} \times \frac{day}{24hr}$$

C. While operating in a Non-Dual Fuel mode, the average Facility hourly CO emissions rate of all the Nordberg engines shall not exceed the resulting product of Equation 2.2a. (NSR 2448A-R1, Condition 2.b)

Equation 2.2a: Maximum Average Hourly CO Emissions Rate for Non-Dual Fuel Operations.

$$CO\frac{lb}{hr} = \frac{9.4\,lb\ CO}{hr} \times (\#\ of\ Engines\ \text{Available}\ for\ Daily\ Operation)$$

Daily compliance with the above average pound per hour CO limit shall be demonstrated by Equation 2.2b.

Equation 2.2b: Actual average CO Emissions Rate for Non-Dual Fuel Operations in each calendar day.

$$\frac{lb\,CO}{hr} = (Emissions\ Factor)\frac{lb\,CO}{hr} \times \frac{Non\ Dual\ Fuel\ Operating\ Hours}{day} \times \frac{day}{24hr}$$

D. While operating in a Dual Fuel mode, the average Facility hourly NOx emissions rate of all the Nordberg engines shall not exceed the resulting product of Equation 2.3a. (NSR 2448A-R1, Condition 2.c)

Equation 2.3a: Maximum Average Hourly NOx Emissions Rate for Dual Fuel Operations.

$$NOx\frac{lb}{hr} = \frac{26.3\,lb\ NOx}{hr} \times (\#\ of\ Engines\ \text{Available}\ for\ Daily\ Operation)$$

Daily compliance with the above average pound per hour NOx limit shall be demonstrated by Equation 2.3b.

Equation 2.3b: Actual average NOx Emissions Rate for Dual Fuel Operations in each calendar day.

$$\frac{lb\ NO_X}{hr} = (Emissions\ Factor)\frac{lb\ NO_X}{hr} \times \frac{Dual\ Fuel\ Operating\ Hours}{day} \times \frac{day}{24hr}$$

E. While operating in a Dual Fuel mode, the average Facility hourly CO emissions rate of all the Nordberg engines shall not exceed the resulting product of Equation 2.4a. (NSR 2448A-R1, Condition 2.d)

Equation 2.4a: Maximum Average Hourly CO Emissions Rate for Dual Fuel Operations.

$$CO\frac{lb}{hr} = \frac{28.57\ lb\ CO}{hr} \times (\#\ of\ Engines\ \text{Available}\ for\ Daily\ Operation)$$

Daily compliance with the above average pound per hour CO limit shall be demonstrated by Equation 2.4b.

Equation 2.4b: Actual average CO Emissions Rate for Dual Fuel Operations in each calendar day.

$$\frac{lb\ CO}{hr} = (Emissions\ \ Factor)\frac{lb\ CO}{hr} \times \frac{Dual\ \ Fuel\ \ Operating\ \ Hours}{day} \times \frac{day}{24hr}$$

F. The emission factor used (lb per hour of NOx and CO) shall be determined by averaging valid test results (for all engines) for a specific fuel (100% diesel or Dual Fuel), based on the most recent, verified data. Subsequent tests shall not affect the average except as provided in Section B111, General Testing and until the results have been verified in writing (including email) by NMED as representative and valid. (NSR 2448A-R1, Condition 2.e, and revised)

G. In accordance with 20.2.61.109 NMAC, the owner or operator of stationary combustion equipment shall not permit, cause, suffer or allow visible emissions from the stationary combustion equipment to equal or exceed an opacity of 20 percent. Any excess emission resulting from startup, shutdown or malfunction shall be reported in accordance with 20 NMAC 2.7. (NSR 2448A-R1, Condition 2.f)

H. Emission factors for 100% diesel shall be used to calculate emissions for Non Dual Fuel operations. (NSR 2448A-R1, Condition 2.g)

I. The HAPS emissions from the combined mixer/settler tanks at this facility are estimated to be 2.9 pounds per hour (12.9 tons per year) using the BHP Method. (NSR 2448-R3, Condition A106.B)

J. There are no tank flashing emissions from the Solution Extraction Plant. (NSR 2448-R3, Condition A106.C)

A107 Facility: Allowable Startup, Shutdown, and Maintenance (SSM) Emissions

A. Allowable SSM emission limits are not imposed at this time. The permittee shall maintain records in accordance with Condition B109.E.

A108 Facility: Hours of Operation

A. This facility is authorized for continuous operation except as noted below. No monitoring, recordkeeping, and reporting requirements are required to demonstrate compliance with continuous hours of operation.

B. Generators (PPG-1, 3, 4, 7, 8, 11, 12, 13, 14, and 15) have been declared Emergency Use and are authorized to operate a combined 3,000 hours per year. (NSR 2448A-R1, Condition 1.b, and revised.)

C. Unit No. CE-1 shall not exceed 500 hours per year of power plant associated activities. Activities other than those associated with the power plant shall not consume any part of this annual allowance. (NSR 2448A-R1, Condition 1.c)

D. Unit ENV-123 shall operate no more than 300 hours per calendar year to demonstrate compliance with the allowable emission limits. (NSR Permit 2448-R3, Condition A602.A)

A109 Facility: Reporting Schedules

A. A Semi-Annual Report of monitoring activities is due within 45 days following the end of every 6-month period starting on 09/01/2002.

B. The Annual Compliance Certification Report is due within 30 days following the end of every 12 month reporting period starting on the first day of September.

C. Quarterly reports shall be submitted for the Nordberg engines for the reporting periods ending March 31, June 30, September 30, and December 31. The reports shall be submitted to the Department within thirty (30) days of the end of its respective reporting period. (NSR 2448A-R1, Condition 5.a)

A110 Facility: Fuel Sulfur Requirements

A. The power plant shall combust only pipeline quality natural gas, or low sulfur diesel. The low sulfur diesel, as delivered, shall contain no more than 0.05% (by weight) of total sulfur. (NSR 2448A-R1, Condition 1.e)

A111 Facility: 20.2.61 NMAC Opacity

A. PPG-1, 3, 4, 7, 8, 11, 12, 13, 14, 15, CE-1, B-079, B-088, and ENV-123

Requirement: All combustion units shall not exceed 20% opacity. The 10 generators combust dual fuel or diesel (PPG-1, 3, 4, 7, 8, 11, 12, 13, 14, 15); the 2 water heaters (B-079, B-088) combust natural gas; and stormwater pump engine (ENV-123) and the cold start compressor engine (CE-1) combust diesel fuel.
Monitoring: Use of natural gas fuel or natural gas liquids constitutes compliance with 20.2.61 NMAC unless opacity exceeds 20% averaged over a 10-minute period. At such time as fuel other than natural gas or natural gas liquids is used, or when any visible emissions are observed during steady state operation, opacity shall be measured over a 10-minute period in accordance with the procedures at 40 CFR 60, Appendix A, Method 9 as required by 20.2.61.114 NMAC. When fuels other than natural gas or natural gas liquids are used, opacity measurements shall continue on a quarterly basis per calendar year for each affected unit until such time as natural gas or natural gas liquids are used.
Recordkeeping: The permittee shall record dates and duration of use of any fuels other than natural gas or natural gas liquids and the corresponding opacity measurements.
Reporting: The permittee shall report dates and duration of use of any fuels other than natural gas or natural gas liquids and the corresponding opacity measurements. If engines burn diesel fuel, certification of grade and characteristics as stated in permit application for fuel used during the period shall be reported.

A112 Alternative Operating Scenario (not required)

A113 Compliance Plan (not required)

(20.2.70.302.G.2 NMAC)

A114 Reducing Facility Emissions (not required)

EQUIPMENT SPECIFIC REQUIREMENTS

OIL AND GAS INDUSTRY

A200 Oil and Gas Industry (not required)

A. This section has common equipment related to most Oil and Gas Operations.

CONSTRUCTION INDUSTRY

A300 Construction Industry

A. This section has common equipment related to most Screening Operations.

A301 Contractor Owned/Contractor Operated Screening Operations for Reclamation Activities

A. Contractor Documentation

Requirement: The permittee has requested to use in place of its screening plant those provided by a Contractor to be determined later. The Permittee shall ensure the Contractor owned/Contractor Operated plants have the authority to operate on the Tyrone Mine Complex by having an approved General Construction Permit and Relocation Notice.
Monitoring: The permittee shall ensure or obtain through it's contractual process: (1) A copy of the NMED/AQB approved Relocation Notice to the area within the Tyrone Mine Complex; (2) A copy of the contractor's General Construction Permit; (3) A copy of the contract between Freeport-McMoRan Tyrone Inc. and the contractor; (4) If not provided with the Relocation Notice, description of equipment, make/model, capacity rate, and list of equipment to be relocated to the Tyrone Mine Complex; (5) The contract requirements do not force the contractor to violate the conditions of his General Construction Permit; and (6) Engine Emission Test results or Manufactures' specifications for any engine to be relocated to the Tyrone Mine Complex.
Recordkeeping: The permittee shall maintain records in accordance with Section B109.
Reporting: The permittee shall report in accordance with Section B110.

B. Screening Production Limits

Requirement: The total combined process rate of the two authorized plants shall not exceed 1200 tons per hour. This production rate and configuration were specified in the permit application and used as the basis for the Department's modeling analysis to determine compliance with the applicable ambient air quality standards.
Monitoring: The Permittee shall monitor: (1) Daily tons of material processed; (2) Daily hours of operation; (3) Daily water application to meet emission limits; (4) By obtaining a plant layout/configuration showing the number of drops; (5) Screen Plant haul road length and daily the number of trips. (6) Using the information above, calculate and monitor the pounds per hour emission rates to ensure compliance with the allowable TSP, PM_{10} and $PM_{2.5}$ emission rates shown in Table 106.A for the Unit SP-1A/7A. (7) Using the information above, calculate and monitor the tons per year and tons per hours emission rates to ensure compliance with the allowable TSP, PM_{10} and $PM_{2.5}$ emission rates shown in Table 106.A for the Unit SP-1A/7A.
Recordkeeping: The permittee shall maintain records in accordance with Section B109.
Reporting: The permittee shall report in accordance with Section B110.

C. Generator limits for Screening Plants (SP-1A/7A)

Requirement: The total combined generator pound per hour NOx, CO and SO_2 emissions shall not exceed those shown in Table 106.A for Unit SP-1A/7A. The total combined hours of operation for one or more generators supporting contractor operated screening plants shall not exceed 8760 hours per year, no one generator may exceed 4380 hours per year. The hourly emission rate limit and hours of operation were specified in the permit application and used as the basis for the Department's modeling analysis to determine compliance with the applicable ambient air quality standards.
Monitoring: The Permittee shall monitor the engine specifications provided by the subcontractor to ensure the individual and/or combined pounds per hour NOx, CO and SO_2 emissions limits are not exceeded. The Permittee shall monitor the daily operating hours of each generator being used to provide power to the screening operation(s).
Recordkeeping: The permittee shall maintain records in accordance with Section B109.
Reporting: The permittee shall report in accordance with Section B110.

POWER GENERATION INDUSTRY

A400 Power Generation Industry

A. This section has common equipment related to most Electric Service Operations (SIC-4911).

A401 Turbines (not required)

A402 Boilers (not required)

A403 Emergency Engines

A. Acid Rain Program, PPG-1, 3, 4, 7, 8, 11, 12, 13, 14, 15

Requirement: The emergency emission units shall each serve only one or more generators up to a total nameplate capacity of 25 Mega Watts of electric power so as not to be subject to the Acid Rain Program.
Monitoring: The permittee shall comply with monitoring requirements of the new unit exemption of 40CFR72.7.(f). (2) and (3).
Recordkeeping: The permittee shall maintain records in accordance with Section B109.
Reporting: The permittee shall report in accordance with Section B110.

B. Operational Requirements, PPG-1, 3, 4, 7, 8, 11, 12, 13, 14, 15

Requirement: The emergency emission units shall each serve only one or more generators up to a total nameplate capacity of 25 Mega Watts of electric power, and shall burn only fuels with a sulfur content of 0.05 percent or less by weight to comply with the combined engine emission limit. See Dual Fuel scenario requirements in A403.D. The term Power Plant means the building where the 10 engines are located. (NSR 2448A-R1, Condition 1.e)
Monitoring: (NSR 2448A-R1, Condition 3.a) thru i) (1) The permittee shall monitor and record the total operating hours (calculated by dividing the total number of engine minutes by 60 and rounded to one decimal point), of each Nordberg engine for each operating scenario (Non Dual Fuel and Dual Fuel) on a daily and monthly basis. (2) The permittee shall monitor and record the number of engines available for daily operations on a daily basis. Only engines capable of operating under a full load condition for 24 consecutive hours are eligible for this designation. (3) The permittee shall monitor and record each operating hour in which each Nordberg engine is operating under a Dual Fuel scenario and is not producing electricity. (4) The permittee shall monitor and record each operating hour in which each Nordberg engine is started on diesel for purely maintenance purposes. (5) The permittee shall monitor and record the total volumetric flow of the pipe line

quality natural gas consumed by the Power Plant on a monthly and a calendar year basis.

(6) The permittee shall monitor and record the total volumetric flow of the low sulfur diesel consumed by the Power Plant on a monthly and a calendar year basis.

(7) The permittee shall monitor and record the total operating hours of the cold start engine used in support of the Power Plant.

Recordkeeping:

(1) The permittee shall keep records of all measurements and monitoring required above (electronic recordkeeping is acceptable).

(2) The permittee shall maintain records (electronic recordkeeping is acceptable) of startups, shutdowns, and malfunctions of each Nordberg engine.

(3) The permittee shall keep records of any maintenance and repair work performed on the Nordberg engine(s).

(4) The permittee shall keep records of the sulfur content of each diesel shipment used for combustion in the ten (10) Nordberg engines.

(5) The permittee shall obtain annual documentation from its pipeline quality natural gas supplier showing whether or not the delivered product meets the sulfur requirements of the FERC Gas tariff or the equivalent standard identified by any other name.

Reporting: The permittee shall report in accordance with Section B110 and the following. The Quarterly reports shall include the following items:

(1) The total hours of operation and which operating scenario the Nordberg engine is operating under (Non Dual Fuel or Dual Fuel) for each Nordberg engine on a monthly basis.

(2) The total number of engine hours in which the facility operated in a Dual Fuel scenario and did not produce electricity.

(3) The number of engines available for daily operation on a daily basis.

(4) The total natural gas (dscf) usage of the facility on a monthly basis.

(5) The total diesel (gal) usage of the facility on a monthly basis.

(6) A summary of 20.2.7 NMAC excess emissions reports for the reporting period, if applicable.

(7) A summary of the fuel sulfur records.

C. Air Fuel Ratio (AFR) Controller:

Requirement: For each AFR controlling type device, demonstrate that the manufacturer's or supplier's recommended maintenance is performed, including replacement of oxygen sensor as necessary for oxygen-based controllers.

Monitoring: Verification of proper operation of the controller shall be demonstrated at least quarterly by measuring and recording exhaust oxygen or NO_x concentrations with a properly calibrated portable analyzer as specified in the most current version of the SOP for "Use of

Portable Analyzers in Performance Tests".
Recordkeeping: The permittee shall maintain records in accordance with Section B109.
Reporting: The permittee shall report in accordance with Section B110.

D. The Permittee shall operate the power plant's ten (10) Nordberg engines in a Dual Fuel scenario at least 80 percent of the power plant's Total Calendar Year Engine Hours, as expressed in Equation 1.f. The total shall be calculated at the end of each month and calendar year; and compliance shall be determined by the results at the end of each calendar year. The accounting period commenced as of January 1, 2002. Notwithstanding any provision stated here, engine operating hours shall not exceed the appropriate limits listed in Condition A108.B. (NSR 2448A-R1, Condition 1.f)

Equation 1.f: Compliance Calculation for $\geq$ 80% Dual Fuel Requirement:

$$\frac{\text{Total Calendar Year Dual Fuel Engine Hours}}{\text{Total Calendar Year Engine Hours}} \quad \textit{Shall Be} \quad \geq \quad 0.80$$

For purposes of Equation 1.f, the following shall apply:

"Total Calendar Year Dual Fuel Hours" shall consist of the calendar year plant-wide total of hours in which an individual Nordberg engine operated in a Dual Fuel scenario and generated electricity.

"Total Calendar Year Engine Hours" shall consist of the calendar year plant-wide total of hours in which an individual Nordberg engine operated for any purpose, except as provided in (i) and (ii):

i) Non-Dual Fuel engine hours that are accumulated from engines that are started on diesel for purely maintenance purposes shall not be included in the Total Calendar Year Engine Hours. This exemption shall not exceed 15 engine hours (for the facility) for any single calendar month.

ii) Non-Dual Fuel engine hours that are accumulated from engines that underwent follow up EPA Method testing. (in accordance with Section B111, General Testing) shall not be included in the Total Calendar Year Engine Hours. This exemption shall not exceed 18 engine hours per calendar year for each engine that underwent follow up EPA Method testing.

iii) Non-Dual Fuel engine hours that are accumulated from engines that are started up using diesel, in preparation for operating in a Dual Fuel scenario to generate electricity, shall not be included in the Total Calendar Year Engine Hours. This exemption shall not exceed 1 engine hour per engine per startup event.

E. In the event that permittee's daily natural gas supply is curtailed by 75% or more (by volume requirement of the ten (10) Nordberg engines) due to reasons beyond permittee's control, operation of the ten (10) Nordberg engines, until natural gas supply is restored, are not counted toward the requirement of condition A403.C. The Permittee shall use natural gas at the power plant to the fullest extent possible under such natural gas curtailment conditions. Purchase price of pipeline quality natural gas shall not be used to determine the curtailment status of the natural gas supply. (NSR 2448A-R1, Condition 1.g)

F. All equipment except the ten (10) Nordberg engines and the cold start engine, including the AFR controllers and the building fans required by BACT, shall be installed, operated and maintained in a manner consistent with the manufacturer's intended purpose, specifications and recommended procedures. The ten (10) Nordberg engines and the cold start engine shall be installed, operated and maintained in a manner consistent with good industry practices necessary to meet the conditions of this permit. (NSR 2448A-R1, Condition 1.h)

G. "Dual Fuel" shall mean a fuel combination consisting of at least 90% natural gas and no more than 10% diesel, based on the quantity of British Thermal Units (BTUs) consumed by the power plant engines. (NSR 2448A-R1, Condition 1.i)

H. "Non Dual Fuel" shall mean any fuel scenario or combination other than Dual Fuel. (NSR 2448A-R1, Condition 1.j)

I. 100% diesel", "diesel or "Diesel Fuel" shall mean solely diesel fuel oil. (NSR 2448A-R1, Condition 1.k)

J. The Department has determined that BACT consists of: (NSR 2448A-R1, Condition 1.l)

(1) Operation on an 80%-20% Dual Fuel/Non-Dual Fuel split in accordance with Specific Conditions A403.D, and A106.B.

(2) Replacing the old pneumatic air-to fuel ratio (AFR) control systems with electronic AFR control systems, and

(3) Increasing the stack height, and

(4) Installing two building ventilation fans (75,000 cfm - each).

SOLID WASTE DISPOSAL (LANDFILLS) INDUSTRY

A500 Solid Waste Disposal (Landfills) Industry – Not Required

MINING INDUSTRY

A600 Mining Operations Introduction

A. This section has common equipment related to most mining Operations.

A601 Solvent Extraction – Electro-winning (SX/EW) Plant NSR Permit 2448-R3

A. The equipment regulated by this permit for the SX/EW Plant consists of ten covered mixer/settler tanks, six for extraction and four for stripping, that total 61,366 square feet of surface area, an open 400,000 gallon raffinate tank, and an open 2 million gallon raffinate tank.

B. The Department approves of the emissions estimates that were based on the study, BHP Copper - Quantification of Volatile Organic Compound Emissions From The Solution Extraction Process (BHP Method). The physical conditions of this facility must be similar to those described in the study. Specifically, the mixer/settler tanks must be covered in order to minimize the velocity of air flow across the liquid surface of the tanks.

C. Units SX/EW 1, 2, 3, and 4

Requirement: The facility shall use any combination of the following products: Acorga M5640, M5774, M5850, M5910 as the extraction reagent, and SX-7, SX-80, Penreco 170ES, Conosol 170ES as the organic diluent, or approved equivalents.
Monitoring: The permittee shall monitor the types of the diluent and extraction reagent used and the dates any changes are made.
Recordkeeping: In accordance with Section B109 of this permit the operating logs and records of the following information shall be kept: a) The diluent and extraction reagent types used and the dates any changes are made. b) The composition (e.g. molecular weight, HAP constituents, vapor pressure and diffusivity coefficient) of all diluents and extraction reagents used in the process.
Reporting: In accordance with Section B110 of this permit, the permittee shall notify the Enforcement Section, Air Quality Bureau in writing of: a) Any necessary update or correction, such as changes in extraction reagent or diluent, no more than sixty (60) days after the operator knows or should have known of the condition necessitating the update or correction of the permit. b) Any change of operators within fifteen (15) days of such change. (20.2.72.212 NMAC)
Compliance Testing: No compliance tests are required for the VOC and HAPS emissions at this facility. The Department accepts the validity of the BHP Method and its application to the estimation of emissions from this facility. Duplication of the physical conditions (covered mixer/settler tanks) and adjustment for the differences in the composition of diluent and extraction reagent is accepted in lieu of physical testing.

A602 Stormwater Pump

A. Hours of Operation

Requirement: Unit ENV-123 shall operate no more than 300 hours per year to demonstrate compliance with the allowable emission limits. (NSR Permit 2448-R3, Condition A602.A)
Monitoring: The date and hours of operation shall be recorded.
Recordkeeping: In accordance with Section B109 of this permit.
Reporting: In accordance with Section B110 of this permit.

A603 Blasting Operations

A. Explosives

Requirement: The permittee shall not exceed the consumption of explosives of eighteen thousand five hundred (18,500) tons per year in the blasting operation. This is the basis for emission calculation for mine fugitives (blasting).
Monitoring: Monitor the use of explosives to ensure the tons per year limit is not exceeded.
Recordkeeping: The permittee shall keep records of the amount of explosives used every month, and the resulting fugitive emissions. These records shall show the monthly total and year-to-date total.
Reporting: The permittee shall report in accordance with Section B110.

PART B GENERAL CONDITIONS

B100 Introduction

A. Not Applicable

B101 Legal

A. Permit Terms and Conditions (20.2.70 sections 7, 201.B, 300, 301.B, 302, 405 NMAC)

(1) The permittee shall abide by all terms and conditions of this permit, except as allowed under Section 502(b)(10) of the federal Act, and 20.2.70.302.H.1 NMAC. Any permit noncompliance is grounds for enforcement action, and significant or repetitious noncompliance may result in termination of this permit. Additionally, noncompliance with federally enforceable conditions of this permit constitutes a violation of the federal Act. (20.2.70.302.A.2.a NMAC)

(2) Emissions trading within a facility (20.2.70.302.H.2 NMAC)

(a) The Department shall, if an applicant requests it, issue permits that contain terms and conditions allowing for the trading of emissions increases and decreases in the permitted facility solely for the purpose of complying with a federally enforceable emissions cap that is established in the permit in addition to any applicable requirements. Such terms and conditions shall include all terms and conditions required under 20.2.70.302 NMAC to determine compliance. If applicable requirements apply to the requested emissions trading, permit conditions shall be issued only to the extent that the applicable requirements provide for trading such increases and decreases without a case-by-case approval.

(b) The applicant shall include in the application proposed replicable procedures and permit terms that ensure the emissions trades are quantifiable and enforceable. The Department shall not include in the emissions trading provisions any emissions units for which emissions are not quantifiable or for which there are no replicable procedures to enforce the emissions trades. The permit shall require compliance with all applicable requirements.

(3) It shall not be a defense for the permittee in an enforcement action to claim that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. (20.2.70.302.A.2.b NMAC)

(4) If the Department determines that cause exists to modify, reopen and revise, revoke and reissue, or terminate this permit, this shall be done in accordance with 20.2.70.405 NMAC. (20.2.70.302.A.2.c NMAC)

(5) The permittee shall furnish any information the Department requests in writing to determine if cause exists for reopening and revising, revoking and reissuing, or

terminating the permit, or to determine compliance with the permit. This information shall be furnished within the time period specified by the Department. Additionally, the permittee shall furnish, upon request by the Department, copies of records required by the permit to be maintained by the permittee. (20.2.70.302.A.2.f NMAC)

(6) A request by the permittee that this permit be modified, revoked and reissued, or terminated, or a notification by the permittee of planned changes or anticipated noncompliance, shall not stay any conditions of this permit. (20.2.70.302.A.2.d NMAC)

(7) This permit does not convey property rights of any sort, or any exclusive privilege. (20.2.70.302.A.2.e NMAC)

(8) In the case where an applicant or permittee has submitted information to the Department under a claim of confidentiality, the Department may also require the applicant or permittee to submit a copy of such information directly to the Administrator of the EPA. (20.2.70.301.B NMAC)

(9) The issuance of this permit, or the filing or approval of a compliance plan, does not relieve the permittee from civil or criminal liability for failure to comply with the state or federal Acts, or any applicable state or federal regulation or law. (20.2.70.302.A.6 NMAC and the New Mexico Air Quality Control Act NMSA 1978, Chapter 74, Article 2)

(10) If any part of this permit is challenged or held invalid, the remainder of the permit terms and conditions are not affected and the permittee shall continue to abide by them. (20.2.70.302.A.1.d NMAC)

(11) A responsible official (as defined in 20.2.70.7.AD NMAC) shall certify the accuracy, truth and completeness of every report and compliance certification submitted to the Department as required by this permit. These certifications shall be part of each document. (20.2.70.300.E NMAC)

(12) Revocation or termination of this permit by the Department terminates the permittee's right to operate this facility. (20.2.70.201.B NMAC)

(13) The permittee shall continue to comply with all applicable requirements. For applicable requirements that will become effective during the term of the permit, the permittee shall meet such requirements on a timely basis. (Sections 300.D.10.c and 302.G.3 of 20.2.70 NMAC)

B. Permit Shield (20.2.70.302.J NMAC)

(1) Compliance with the conditions of this permit shall be deemed to be compliance with any applicable requirements existing as of the date of permit issuance and identified in Table 103.A. The requirements in Table 103.A are applicable to this facility with specific requirements identified for individual emission units.

(2) The Department has determined that the requirements in Table 103.B as identified in the permit application are not applicable to this source, or they do not impose any conditions in this permit.

(3) This permit shield does not extend to administrative amendments, to minor permit modifications, to changes made under Section 502(b)(10) of the federal Act, or to permit terms for which notice has been given to reopen or revoke all or part.

(4) This permit shall, for purposes of the permit shield, identify any requirement specifically identified in the permit application or significant permit modification that the department has determined is not applicable to the source, and state the basis for any such determination. (20.2.70.302.A.1.f NMAC)

B102 Authority

A. This permit is issued pursuant to the federal Clean Air Act ("federal Act"), the New Mexico Air Quality Control Act ("state Act") and regulations adopted pursuant to the state and federal Acts, including Title 20, New Mexico Administrative Code, Chapter 2, Part 70 (20.2.70 NMAC) - Operating Permits.

B. This permit authorizes the operation of this facility. This permit is valid only for the named permittee, owner, and operator. A permit modification is required to change any of those entities.

C. The Department specifies with this permit, terms and conditions upon the operation of this facility to assure compliance with all applicable requirements, as defined in 20.2.70 NMAC at the time this permit is issued. (20.2.70.302.A.1 NMAC)

D. Pursuant to the New Mexico Air Quality Control Act NMSA 1978, Chapter 74, Article 2, all terms and conditions in this permit, including any provisions designed to limit this facility's potential to emit, are enforceable by the Department. All terms and conditions are enforceable by the Administrator of the United States Environmental Protection Agency ("EPA") and citizens under the federal Act, unless the term or condition is specifically designated in this permit as not being enforceable under the federal Act. (20.2.70.302.A.5 NMAC.

E. The Department is the Administrator for 40 CFR Parts 60, 61, and 63 pursuant to the delegation and exceptions of section 10 of 20.2.77 NMAC (NSPS), 20.2.78 NMAC (NESHAP), and 20.2.82 NMAC (MACT).

B103 Annual Fee

A. The permittee shall pay Title V fees to the Department consistent with the fee schedule in 20.2.71 NMAC - Operating Permit Emission Fees. The fees will be assessed and invoiced separately from this permit. (20.2.70.302.A.1.e NMAC)

B104 Appeal Procedures
(20.2.70.403.A NMAC)

A. Any person who participated in a permitting action before the Department and who is adversely affected by such permitting action, may file a petition for a hearing before the Environmental Improvement Board ("board"). The petition shall be made in writing to the board within thirty (30) days from the date notice is given of the Department's action and shall specify the portions of the permitting action to which the petitioner objects, certify that a copy of the petition has been mailed or hand-delivered, and attach a copy of the permitting action for which review is sought. Unless a timely request for a hearing is made, the decision of the Department shall be final. The petition shall be copied simultaneously to the Department upon receipt of the appeal notice. If the petitioner is not the applicant or permittee, the petitioner shall mail or hand-deliver a copy of the petition to the applicant or permittee. The Department shall certify the administrative record to the board. Petitions for a hearing shall be sent to:

Secretary, New Mexico Environmental Improvement Board
1190 St. Francis Drive, Runnels Bldg. Rm N2153
P.O. Box 5469
Santa Fe, New Mexico 87502

B105 Submittal of Reports and Certifications

A. Stack Test Protocols and Stack Test Reports shall be submitted electronically to Stacktest.AQB@state.nm.us. Stack Test Reports may also be submitted in hardcopy format or on CD to the address in B105 C.

B. Excess Emission Reports shall be submitted electronically to eereports.aqb@state.nm.us. (20.2.7.110 NMAC)

C. Compliance Certification Reports, Semi-Annual monitoring reports, compliance schedule progress reports, and any other compliance status information required by this permit shall be certified by the responsible official and submitted to:

Manager, Compliance and Enforcement Section
New Mexico Environment Department
Air Quality Bureau
1301 Siler Road, Building B
Santa Fe, NM 87507-3113

D. Compliance Certification Reports shall also be submitted to the Administrator at the address below (20.2.70.302.E.3 NMAC):

Chief, Air Enforcement Section
US EPA Region-6, 6EN-AA
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

B106 NSPS and/or MACT Startup, Shutdown, and Malfunction Operations

A. If a facility is subject to a NSPS standard in 40 CFR 60, each owner or operator that installs and operates a continuous monitoring device required by a NSPS regulation shall comply with the excess emissions reporting requirements in accordance with 40 CFR 60.7(c).

B. If a facility is subject to a NSPS standard in 40 CFR 60, then in accordance with 40 CFR 60.8(c), emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction shall not be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard.

C. If a facility is subject to a MACT standard in 40 CFR 63, then the facility is subject to the requirement for a Startup, Shutdown and Malfunction Plan (SSM) under 40 CFR 63.6(e)(3). (20.2.70.302.A.1 and A.4 NMAC)

B107 Startup, Shutdown, and Maintenance Operations

A. The permittee shall operate in accordance with the procedures set forth in the plan to minimize emissions during routine or predictable start up, shut down, and scheduled maintenance (SSM work practice plan), except for operations or equipment subject to condition B106 above. (20.2.7.14.A NMAC)

B108 General Monitoring Requirements
(20.2.70. 302.A and C NMAC)

A. These requirements do not supersede or relax requirements of federal regulations.

B. The following monitoring and/or testing requirements shall be used to determine compliance with applicable requirements and emission limits. Any sampling, whether by portable analyzer or EPA reference method, that measures an emission rate over the applicable averaging period greater than an emission limit in this permit constitutes noncompliance with this permit. The Department may require, at its discretion, additional tests pursuant to EPA Reference Methods at any time, including when sampling by portable analyzer measures an emission rate greater than an emission limit in this permit; but such requirement shall not be construed as a determination that the sampling by portable analyzer does not establish noncompliance with this permit and shall not stay enforcement of such noncompliance based on the sampling by portable analyzer.

C. If the emission unit is shutdown at the time when periodic monitoring is due to be accomplished, the permittee is not required to restart the unit for the sole purpose of performing the monitoring. Using electronic or written mail, the permittee shall notify the Department's Enforcement Section of a delay in emission tests prior to the deadline for accomplishing the tests. Upon recommencing operation, the permittee shall submit any pertinent pre-test notification requirements set forth in the current version of the

Department's Standard Operating Procedures For Use Of Portable Analyzers in Performance Test, and shall accomplish the monitoring.

D. The requirement for monitoring during any monitoring period is based on the percentage of time that the unit has operated. However, to invoke monitoring exemptions at B108.D(2), hours of operation shall be monitored and recorded.

(1) If the emission unit has operated for more than 25% of a monitoring period, then the permittee shall conduct monitoring during that period.

(2) If the emission unit has operated for 25% or less of a monitoring period then the monitoring is not required. After two successive periods without monitoring, the permittee shall conduct monitoring during the next period regardless of the time operated during that period, except that for any monitoring period in which a unit has operated for less than 10% of the monitoring period, the period will not be considered as one of the two successive periods.

(3) A minimum of one of each type of monitoring activity shall be conducted during the five year term of this permit.

E. The permittee is not required to report a deviation for any monitoring or testing in a Specific Condition if the deviation was authorized in this General Condition B108.

F. For all periodic monitoring events, except when a federal or state regulation is more stringent, three test runs shall be conducted at 90% or greater of the unit's capacity as stated in this permit, or in the permit application if not in the permit, and at additional loads when requested by the Department. If the 90% capacity cannot be achieved, the monitoring will be conducted at the maximum achievable load under prevailing operating conditions except when a federal or state regulation requires more restrictive test conditions. The load and the parameters used to calculate it shall be recorded to document operating conditions and shall be included with the monitoring report.

G. When requested by the Department, the permittee shall provide schedules of testing and monitoring activities. Compliance tests from previous NSR and Title V permits may be re-imposed if it is deemed necessary by the Department to determine whether the source is in compliance with applicable regulations or permit conditions.

H. Monitoring shall become effective 120 days after the date of permit issuance if the monitoring is new or in addition to monitoring imposed by an existing applicable requirement. Any pre-existing monitoring requirements incorporated in this permit shall continue to be in force from the date of permit issuance.

B109 General Recordkeeping Requirements
(20.2.70.302.D NMAC)

A. The permittee shall maintain records to assure and verify compliance with the terms and conditions of this permit and any applicable requirements that become effective during the

term of this permit. The minimum information to be included in these records is (20.2.70.302.D.1 NMAC):

(1) equipment identification (include make, model and serial number for all tested equipment and emission controls);

(2) date(s) and time(s) of sampling or measurements;

(3) date(s) analyses were performed;

(4) the qualified entity that performed the analyses;

(5) analytical or test methods used;

(6) results of analyses or tests; and

(7) operating conditions existing at the time of sampling or measurement.

B. The permittee shall keep records of all monitoring data, equipment calibration, maintenance, and inspections, Data Acquisition and Handling System (DAHS) if used, reports, and other supporting information required by this permit for at least five (5) years from the time the data was gathered or the reports written. Each record shall clearly identify the emissions unit and/or monitoring equipment, and the date the data was gathered. (20.2.70.302.D.2 NMAC)

C. If the permittee has applied and received approval for an alternative operating scenario, then the permittee shall maintain a log at the facility, which documents, contemporaneously with any change from one operating scenario to another, the scenario under which the facility is operating. (20.2.70.302.A.3 NMAC)

D. The permittee shall keep a record describing off permit changes made at this source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under this permit, and the emissions resulting from those changes. (20.2.70.302.I.2 NMAC)

E. Routine and predictable emissions during startup, shutdown, and scheduled maintenance (SSM):

(1) The permittee shall keep records of all events subject to the plan to minimize emissions during routine or predictable SSM. (20.2.7.14.A NMAC)

(2) If the facility has allowable SSM emission limits in this permit, the permittee shall record all SSM events, including the date, the start time, the end time, and a description of the event. This record also shall include a copy of the manufacturer's, or equivalent, documentation showing that any maintenance qualified as scheduled. Scheduled maintenance is an activity that occurs at an established frequency pursuant to a written protocol published by the manufacturer or other reliable source.

B110 General Reporting Requirements
(20.2.70.302.E NMAC)

A. Reports of all required monitoring activities for this facility shall be submitted to the Department on the schedule in section A109.

B. Reports shall clearly identify the subject equipment showing the emission unit ID number according to this operating permit. In addition, all instances of deviations from permit requirements, including those that occur during emergencies, shall be clearly identified in the reports required by section A109. (20.2.70.302.E.1 NMAC)

C. The permittee shall submit reports of all deviations from permit requirements, including those attributable to upset conditions as defined in the permit, the probable cause of such deviations, and any corrective actions or preventive measures taken. These reports shall be contained in the semi-annual reports required in section A109. (20.2.70.302.E.2 NMAC)

D. The permittee shall submit reports of excess emissions in accordance with 20.2.7.110.A NMAC.

E. Results of emission tests and monitoring for each pollutant (except opacity) shall be reported in pounds per hour (unless otherwise specified) and tons per year. Opacity shall be reported in percent. The number of significant figures corresponding to the full accuracy inherent in the testing instrument or Method test used to obtain the data shall be used to calculate and report test results in accordance with 20.2.1.116.B and C NMAC. Upon request by the Department, CEMS and other tabular data shall be submitted in editable, MS Excel format.

F. At such time as new units are installed as authorized by the applicable NSR Permit, the permittee shall fulfill the notification requirements in the NSR permit.

G. Periodic Emissions Test Reporting: The permittee shall report semi-annually a summary of the test results.

H. The permittee shall submit an emissions inventory for this facility annually. The emissions inventory shall be submitted by the later of April 1 or within 90 days after the Department makes such request. (20.2.73 NMAC and 20.2.70.302.A.1 NMAC)

I. Emissions trading within a facility (20.2.70.302.H.2 NMAC)

(1) For each such change, the permittee shall provide written notification to the department and the administrator at least seven (7) days in advance of the proposed changes. Such notification shall state when the change will occur and shall describe the changes in emissions that will result and how these increases and decreases in emissions will comply with the terms and conditions of the permit.

(2) The permittee and department shall attach each such notice to their copy of the relevant permit.

J. Non-NSPS or non-MACT monitoring and recordkeeping requirements shall be maintained on-site or (for unmanned sites) at the nearest company office, and summarized in the semi-

annual reports, unless alternative reporting requirements are specified in the equipment specific requirements section of this permit.

B111 General Testing Requirements

A. EPA Reference Method Tests

(1) All compliance tests required by this permit, unless otherwise specified by Specific Conditions of this permit, shall be conducted in accordance with the requirements of 40 CFR 60, Subpart A, General Provisions, and the following EPA Reference Methods as specified by 40 CFR 60, Appendix A:

(a) Methods 1 through 4 for stack gas flowrate

(b) Method 5 for TSP

(c) Method 6C and 19 for SO_2

(d) Method 7E for NO_X (test results shall be expressed as nitrogen dioxide (NO_2) using a molecular weight of 46 lb/lb-mol in all calculations (each ppm of NO/NO_2 is equivalent to 1.194 x 10-7 lb/SCF)

(e) Method 9 for opacity

(f) Method 10 for CO

(g) Method 19 may be used in lieu of Methods 1-4 for stack gas flowrate upon approval of the Department. A justification for this proposal must be provided along with a contemporaneous fuel gas analysis (preferably on the day of the test) and a recent fuel flow meter calibration certificate (within the most recent quarter).

(h) Method 7E or 20 for Turbines per 60.335 or 60.4400

(i) Method 29 for Metals

(j) Method 201 for filterable PM_{10}

(k) Method 202 for condensable PM

(l) Method 320 for organic Hazardous Air Pollutants (HAPs)

(m) Method 25A for VOC reduction efficiency

(2) Alternative test method(s) may be used if the Department approves the change.

B. Portable Analyzer Requirements

(1) The permittee shall follow the SOP for Use of Portable Analyzers in Performance Tests posted to NMED's Air Quality web site under Compliance and Enforcement/Testing.

(2) A portable analyzer that is used for periodic emissions tests must meet the requirements of ASTM D 6522 – 00. However, if a facility has met a previously approved Department criterion for portable analyzers, the analyzer may be used until it is replaced.

(3) The portable emissions analyzer shall be setup and operated in accordance with the manufacturer's instructions, with the requirements of ASTM D-6522-00, or with the criterion of an analyzer previously approved by the Department.

(4) During emissions tests, pollutant, O2 concentration and fuel flow rate shall be monitored and recorded. This information shall be included with the test report furnished to the Department.

(5) Pollutant emission rate shall be calculated in accordance with 40 CFR 60, Appendix A, Method 19 utilizing fuel flow rate (scf) and fuel heating value (Btu/scf) obtained during the test.

C. Test Procedures:

(1) The permittee shall notify the Department's Program Manager, Compliance and Enforcement Section at least thirty (30) days prior to the test date and allow a representative of the Department to be present at the test.

(2) Equipment shall be tested in the "as found" condition. Equipment may not be adjusted or tuned prior to any test for the purpose of lowering emissions, and then returned to previous settings or operating conditions after the test is complete.

(3) Contents of test notifications, protocols and test reports shall conform to the format specified by the Department's *Universal Test Notification, Protocol and Report Form and Instructions.* Current forms and instructions are posted to NMED's Air Quality web site under Compliance and Enforcement Testing.

(4) The permittee shall provide (a) sampling ports adequate for the test methods applicable to the facility, (b) safe sampling platforms, (c) safe access to sampling platforms and (d) utilities for sampling and testing equipment. Sample ports of a size compatible with the test methods shall be located on the stack with the provisions of EPA Method 1 of 40 CFR 60, Appendix A. The stack shall be of sufficient height and diameter so that a representative test of the emissions can be performed in accordance with EPA Method 1.

(5) Where necessary to prevent cyclonic flow in the stack, flow straighteners shall be installed.

B112 Compliance

A. Required records shall be organized by date and subject matter and shall at all times be readily available for inspection. The permittee, upon verbal or written request from an authorized representative of the Department who appears at the facility, shall immediately produce for inspection or copying any records required to be maintained at the facility. Upon written request at other times, the permittee shall deliver to the Department paper or electronic copies of any and all required records maintained on site or at an off-site location. Requested records shall be copied and delivered at the permittee's expense within three days unless the Department allows additional time. Required records may include records

required by permit and other information necessary to demonstrate compliance with terms and conditions of this permit. (NMSA 1978, Section 74-2-13)

B. A copy of the most recent permit(s) issued by the Department shall be kept at the permitted facility or (for unmanned sites) at the nearest company office and shall be made available to Department personnel for inspection upon request. (20.2.70.302.G.3 NMAC)

C. Emissions limits associated with the energy input of a Unit, i.e. lb/MMBtu, shall apply at all times unless stated otherwise in a Specific Condition of this permit. The averaging time for each emissions limit, including those based on energy input of a Unit (i.e. lb/MMBtu) is one (1) hour unless stated otherwise in a Specific Condition of this permit or in the applicable requirement that establishes the limit. (20.2.70.302.A.1 and G.3 NMAC)

D. The permittee shall submit compliance certification reports certifying the compliance status of this facility with respect to all permit terms and conditions, including applicable requirements. These reports shall be made on the pre-populated Compliance Certification Report Form that is provided to the permittee by the Department, and shall be submitted to the Department and to EPA at least every 12 months. For the most current form, please contact the Compliance Reports Group at email:reportsgroup.aqb@state.nm.us. For additional reporting guidance see http://www.nmenv.state.nm.us/aqb/enforce_compliance/TitleVReporting.htm. (20.2.70.302.E.3 NMAC)

E. For sources that have submitted air dispersion modeling that demonstrates compliance with federal ambient air quality standards, compliance with the terms and conditions of this permit regarding source emissions and operation shall be deemed to be compliance with federal ambient air quality standards specified at 40 CFR 50 NAAQS.

F. The permittee shall allow representatives of the Department, upon presentation of credentials and other documents as may be required by law, to do the following (20.2.70.302.G.1 NMAC):

(1) enter the permittee's premises where a source or emission unit is located, or where records that are required by this permit to be maintained are kept;

(2) have access to and copy, at reasonable times, any records that are required by this permit to be maintained;

(3) inspect any facilities, equipment (including monitoring and air pollution control equipment), work practices or operations regulated or required under this permit; and

(4) sample or monitor any substances or parameters for the purpose of assuring compliance with this permit or applicable requirements or as otherwise authorized by the federal Act.

B113 Permit Reopening and Revocation

A. This permit will be reopened and revised when any one of the following conditions occurs, and may be revoked and reissued when A(3) or A(4) occurs. (20.2.70.405.A.1 NMAC)

(1) Additional requirements under the federal Act become applicable to this source three (3) or more years before the expiration date of this permit. If the effective date of the requirement is later than the expiration date of this permit, then the permit is not required to be reopened unless the original permit or any of its terms and conditions has been extended due to the Department's failure to take timely action on a request by the permittee to renew this permit.

(2) Additional requirements, including excess emissions requirements, become applicable to this source under Title IV of the federal Act (the acid rain program). Upon approval by the Administrator, excess emissions offset plans will be incorporated into this permit.

(3) The Department or the Administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the terms and conditions of the permit.

(4) The Department or the Administrator determines that the permit must be revised or revoked and reissued to assure compliance with an applicable requirement.

B. Proceedings to reopen or revoke this permit shall affect only those parts of this permit for which cause to reopen or revoke exists. Emissions units for which permit conditions have been revoked shall not be operated until new permit conditions have been issued for them. (20.2.70.405.A.2 NMAC)

B114 Emergencies
(20.2.70.304 NMAC)

A. An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the permittee, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventive maintenance, or careless or improper operation.

B. An emergency constitutes an affirmative defense to an action brought for noncompliance with technology-based emission limitations contained in this permit if the permittee has demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

(1) An emergency occurred and that the permittee can identify the cause(s) of the emergency;

(2) This facility was at the time being properly operated;

(3) During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit; and

(4) The permittee submitted notice of the emergency to the Department within 2 working days of the time when emission limitations were exceeded due to the emergency. This notice fulfills the requirement of 20.2.70.302.E.2 NMAC. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

C. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.

D. This provision is in addition to any emergency or upset provision contained in any applicable requirement.

B115 Stratospheric Ozone
(20.2.70.302.A.1 NMAC)

A. If this facility is subject to 40 CFR 82, Subpart F, the permittee shall comply with the following standards for recycling and emissions reductions:

(1) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices. (subsection 82.156)

(2) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment. (subsection 82.158)

(3) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program. (subsection 82.161)

B116 Acid Rain Sources
(20.2.70.302.A.9 NMAC)

A. If this facility is subject to the federal acid rain program under 40 CFR 72, this section applies.

B. Where an applicable requirement of the federal Act is more stringent than an applicable requirement of regulations promulgated under Title IV of the federal Act, both provisions are incorporated into this permit and are federally enforceable.

C. Emissions exceeding any allowances held by the permittee under Title IV of the federal Act or the regulations promulgated thereunder are prohibited.

D. No modification of this permit is required for increases in emissions that are authorized by allowances acquired pursuant to the acid rain program, provided that such increases do not require a permit modification under any other applicable requirement.

E. The permittee may not use allowances as a defense to noncompliance with any other applicable requirement.

F. No limit is placed on the number of allowances held by the acid rain source. Any such allowance shall be accounted for according to the procedures established in regulations promulgated under Title IV of the federal Act.

G. The acid rain permit is an enclosure of this operating permit.

B117 Risk Management Plan
(20.2.70.302.A.1 NMAC)

A. If this facility is subject to the federal risk management program under 40 CFR 68, this section applies.

B. The owner or operator shall certify annually that they have developed and implemented a RMP and are in compliance with 40 CFR 68.

C. If the owner or operator of the facility has not developed and submitted a risk management plan according to 40 CFR 68.150, the owner or operator shall provide a compliance schedule for the development and implementation of the plan. The plan shall describe, in detail, procedures for assessing the accidental release hazard, preventing accidental releases, and developing an emergency response plan to an accidental release. The plan shall be submitted in a method and format to a central point as specified by EPA prior to the date specified in 40 CFR 68.150.b.

PART C MISCELLANEOUS

C100 Supporting On-Line Documents

D. Copies of the following documents can be downloaded from NMED's web site under Compliance and Enforcement or requested from the Bureau.

(1) Excess Emission Form (for reporting deviations and emergencies)

(2) Compliance Certification Report Form

(3) Universal Stack Test Notification, Protocol and Report Form and Instructions

(4) SOP for Use of Portable Analyzers in Performance Tests

C101 Definitions

A. **"Daylight"** is defined as the time period between sunrise and sunset, as defined by the Astronomical Applications Department of the U.S. Naval Observatory. (Data for one day or a table of sunrise/sunset for an entire year can be obtained at http://aa.usno.navy.mil/. Alternatively, these times can be obtained from a Farmers Almanac or from http://www.almanac.com/rise/).

B. **"Exempt Sources"** and **"Exempt Activities"** is defined as those sources or activities that are exempted in accordance with 20.2.72.202 NMAC. Note; exemptions are only valid for most 20.2.72 permitting action.

C. **"Fugitive emission"** means those emissions which could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening.

D. **"Insignificant Activities"** means those activities which have been listed by the department and approved by the administrator as insignificant on the basis of size, emissions or production rate.

E. **"Natural Gas"** is defined as a naturally occurring fluid mixture of hydrocarbons that contains 20.0 grains or less of total sulfur per 100 standard cubic feet (SCF) and is either composed of at least 70% methane by volume or has a gross calorific value of between 950 and 1100 Btu per standard cubic foot. (40 CFR 60.631)

F. **"Natural Gas Liquids"** means the hydrocarbons, such as ethane, propane, butane, and pentane that are extracted from field gas. (40 CFR 60.631)

G. **"National Ambient air Quality Standards"** means, unless otherwise modified, the primary (health-related) and secondary (welfare-based) federal ambient air quality standards promulgated by the US EPA pursuant to Section 109 of the Federal Act.

H. **"NO_2"** or **"Nitrogen dioxide"** means the chemical compound containing one atom of nitrogen and two atoms of oxygen, for the purposes of ambient determinations. The term **"nitrogen dioxide,"** for the purposes of stack emissions monitoring, shall include nitrogen dioxide (the chemical compound containing one atom of nitrogen and two atoms of oxygen), nitric oxide (the chemical compound containing one atom of nitrogen and one atom of oxygen), and other oxides of nitrogen which may test as nitrogen dioxide and is sometimes referred to as NOx or NOx. (20.2.2 NMAC)

I. **"NOx"** see NO_2

J. **"Potential Emission Rate"** means the emission rate of a source at its maximum capacity to emit a regulated air contaminant under its physical and operational design, provided any physical or operational limitation on the capacity of the source to emit a regulated air contaminant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored or processed, shall be treated as part of its physical and operational design only if the limitation or the effect it would have on emissions is enforceable by the department pursuant to the Air Quality Control Act or the federal Act.

K. "**Restricted Area**" is an area to which public entry is effectively precluded. Effective barriers include continuous fencing, continuous walls, or other continuous barriers approved by the Department, such as rugged physical terrain with a steep grade that would require special equipment to traverse. If a large property is completely enclosed by fencing, a

restricted area within the property may be identified with signage only. Public roads cannot be part of a Restricted Area.

L. **"Shutdown"** means the cessation of operation of any air pollution control equipment, process equipment or process for any purpose, except routine phasing out of batch process units.

M. **"Startup"** means the setting into operation of any air pollution control equipment, process equipment or process for any purpose, except routine phasing in of batch process units.

C102 Acronyms

2SLB ..... 2-Stroke Lean Burn
4SLB ..... 4-Stroke Lean Burn
4SRB ..... 4-Stroke Rich Burn
acfm ..... actual cubic feet per minute
AFR ..... air fuel ratio
AP-42 ..... EPA Air Pollutant Emission Factors
AQB ..... Air Quality Bureau
BTU ..... British thermal unit
CAA ..... Clean Air Act of 1970 and 1990 Amendments
CEM ..... Continuous Emissions Monitoring
cfh ..... cubic feet per hour
cfm ..... cubic feet per minute
CFR ..... Code of Federal Regulation
CO ..... carbon monoxides
EIB ..... Environmental Improvement Board
EPA ..... United States Environmental Protection Agency
gr./100 cf ..... grains per one hundred cubic feet
gr./dscf ..... grains per dry standard cubic foot
HAP ..... hazardous air pollutant
hp ..... horsepower
IC ..... Internal Combustion
KW/hr ..... kilowatts per hour
lb/hr ..... pounds per hour
lb/MMBtu ..... pounds per million British thermal unit
MACT ..... Maximum Achievable Control Technology
MMcf/hr ..... million cubic feet per hour
MMscf ..... million standard cubic feet
N/A ..... Not Applicable
NAAQS ..... National Ambient Air Quality Standards
NESHAP ..... National Emission Standards for Hazardous Air Pollutants
NG ..... Natural Gas
NMAAQS ..... New Mexico Ambient Air Quality Standards
NMAC ..... New Mexico Administrative Code

NMED ..... New Mexico Environment Department
NMSA ..... New Mexico Statues Annotated
NOx ..... nitrogen oxides
NSCR ..... Non-selective Catalytic Reduction
NSPS ..... New Source Performance Standard
NSR ..... New Source Review
PEM ..... Parametric Emissions Monitoring
PM ..... particulate matter (equivalent to TSP, total suspended particulate)
PM_{10} ..... particulate matter 10 microns and less in diameter
$PM_{2.5}$ ..... particulate matter 2.5 microns and less in diameter
pph ..... pounds per hour
ppmv ..... parts per million by volume
RICE ..... reciprocating internal combustion engine
rpm ..... revolutions per minute
scfm ..... standard cubic feet per minute
SO_2 ..... sulfur dioxide
TAP ..... Toxic Air Pollutant
TBD ..... to be determined
THC ..... Total Hydrocarbons
TSP ..... Total Suspended Particulates
tpy ..... tons per year
USEPA ..... United States Environmental Protection Agency
UTM ..... Universal Transverse Mercator Coordinate system
UTMH ..... Universal Transverse Mercator Horizontal
UTMV ..... Universal Transverse Mercator Vertical
VOC ..... volatile organic compounds